IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

FILING UNDER 37 CFR 1.53(B)

This is a request for filing for a

☒ continuation   ☐ divisional

application under 37 C.F.R. 1.53(b) of pending prior application Serial No. 08/480,185, filed on June 7, 1995, which is a continuation of application Serial No. 08/132,062, filed on October 4, 1993, now U.S. Patent No. 5,828,734, which is a continuation of application Serial No. 07/779,762, filed on October 21, 1991, now U.S. Patent No. 5,251,252, which is a continuation of application Serial No. 07/425,779, filed on October 23, 1989, now U.S. Patent No. 5,128,984, which is a continuation-in-part of application Serial No. 07/312,792, filed on February 21, 1989, now U.S. Patent No. 5,073,929, which is a continuation-in-part of application Serial No. 07/194,258, filed on May 16, 1988, now U.S. Patent No. 4,845,739, which is a continuation-in-part of application Serial No. 07/018,244, filed on February 24, 1987, now U.S. Patent No. 4,792,968, which is a continuation-in-part of application Serial No. 06/753,299, filed on July 10, 1985, now abandoned, of

Ronald A. Katz

for: TELEPHONE INTERFACE CALL PROCESSING SYSTEM WITH CALL
SELECTIVITY

1.   COPY OF PRIOR APPLICATION AS FILED WHICH IS ATTACHED

☒   The attached specification and drawings are substantially the same as what is shown in our records to be the above-identified prior application, including the oath and declaration originally filed.

CERTIFICATE OF MAILING (37 C.F.R. §1.10)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as 'Express Mail Post Office To Addressee' (Label No. EM 542080900US) in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

May 17, 1999
Date of Deposit

Connie Kwon
Connie Kwon

LA-90055.1

The papers of the attached application and accompanying copies of originally filed documents include:

  20   Pages of Specification

  4   Pages of Claims

  1   Pages of Abstract

  2   Sheets of Drawings   __formal   X Informal

  2   Pages of Declaration and Petition to the principal attorney

  2   Page of Power of Attorney by Assignee from Aldo Tesi

  2   Pages of Power of Attorney by Assignee from Ronald A. Katz

  2   Pages of subsequent Revocation and Grant of Power of Attorney

☒   In accordance with the indication required by 37 CFR 1.53(b), my records reflect that the original signed declaration showing applicant's signature was filed on <u>September 27, 1989</u>.

☐   The amendment referred to in the declaration filed to complete the prior application, and I hereby state, in accordance with the requirements of 37 CFR 1.53(b), that this amendment did not introduce new matter therein.

2. AMENDMENTS

☒   Cancel in this application original Claims <u>2-16</u> of the prior application before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)

☒   A Preliminary Amendment is enclosed. (Claims added by Amendment must be numbered consecutively beginning with the number next following the highest numbered original claim in the prior application.)

3. INFORMATION DISCLOSURE STATEMENT

☐   An Information Disclosure Statement, PTO 1449, and references are submitted herewith.

4. PETITION FOR SUSPENSION OF PROSECUTION FOR THE TIME TO FILE AN AMENDMENT

☐   There is provided herewith a PETITION FOR SUSPENSION OF PROSECUTION FOR THE TIME NECESSARY TO FILE AN AMENDMENT (NEW APPLICATION FILED CONCURRENTLY).

5. **FEE CALCULATION (including claims presented in Preliminary Amendment)**

BASIC FILING FEE:					$760.00
Total Claims	6	- 20	=	0 x $18	$0.00
Independent Claims	4	- 3	=	0 x $78	$0.00
Multiple Dependent Claims			$260 (if applicable)		
Surcharge 37 CFR 1.16(e)			$130 (if applicable)		
TOTAL OF ABOVE CALCULATIONS					$ 760.00
Reduction by ½ for Filing by Small Entity. Note 37 CFR 1.9, 1.27, 1.28. If applicable, Verified Statement must be attached.					
Misc. Filing Fees (Recordation of Assignment)					
TOTAL FEES SUBMITTED HEREWITH					$760.00

☐ The fee for extra claims is not being paid at this time.

Filing Fee Calculation

6. **SMALL ENTITY STATUS**

☐ A Verified Statement to establish small entity under 37 CFR 1.9 and 1.27 is attached

☐ has been filed in the prior application and such status is still proper and desired. [37 CFR 1.28(a)]

Filing Fee Calculation (50% of above) $0.00

7. **DRAWINGS**

[NOTE: DO NOT CHECK THIS IF PRIOR CASE IS NOT TO BE ABANDONED.]

☐ Transfer the drawings from the prior application to this application and, subject to Item 16 below, abandon said prior application as of the filing date accorded to this application. A duplicate copy of this request is enclosed for filing in the prior application file.
[May only be used if signed by (1) applicant, (2) assignee of record or (3) attorney or agent of record authorized by 37 CFR 1.138 and before payment of issue fee.]

☐ Transfer the following sheet(s) of drawings from the prior application to this application.

☒ New drawings are enclosed ☐ formal ☒ informal

8.   **PRIORITY - 35 U.S.C. 119**

☐   Priority of application Serial No. _____ filed on _____ in _____ [country] is claimed under 35 U.S.C. 119.

☐   The certified copy has been filed in prior U.S. application Serial No. _____ on _____.

☐   The certified copy will follow.

9.   **RELATE BACK - 35 U.S.C. 120**

☒   Amend the Specification by deleting on page 1, lines 5-7, and inserting under the heading "Related Subject Matter" as follows:

—This is a continuation of Application Serial No. 08/480,185 filed on June 7, 1995, and entitled "Telephone Interface Call Processing System With Call Selectivity," which is a continuation of Application Serial No. 08/132,062 filed on October 4, 1993, and entitled "Telephone Interface Call Processing System With Call Selectivity," now U.S. Patent No. 5,828,734, which is a continuation of Application Serial No. 07/779,762 filed on October 21, 1991, and entitled "Telephone Interface Call Processing System With Call Selectivity," now U.S. Patent No. 5,251,252, which is a continuation of Application Serial No. 07/425,779 filed on October 23, 1989, and entitled "Telephone Interface Call Processing System With Call Selectivity," now U.S. Patent No. 5,128,984, which is a continuation-in-part of Application Serial No. 07/312,792 filed on February 21, 1989, and entitled "Voice-Data Telephonic Control System," now U.S. Patent No. 5,073,929, which was a continuation-in-part of Application Serial No. 07/194,258 filed on May 16, 1988, and entitled "Telephonic-Interface Statistical Analysis System," now U.S. Patent No. 4,845,739, which was a continuation-in-part of Application Serial No. 07/018,244 filed on February 24, 1987, and entitled "Statistical Analysis System For Use With Public Communication Facility," now U.S. Patent No. 4,792,968, which was a continuation-in-part of Application Serial No. 06/753,299 filed on July 10, 1985, and entitled "Statistical Analysis System For Use With Public Communication Facility," now abandoned.

Also, said Application Serial No. 08/132,062 is a continuation-in-part of Application Serial No. 08/306,751 filed on September 14, 1994, and entitled "Multiple Format Telephonic Interface Control System," which is a continuation of Application Serial No. 08/047,241 filed on April 13, 1993, and entitled "Multiple Format Telephonic Interface Control System," now U.S. Patent No. 5,351,285, which is a continuation of Application Serial No. 07/509,691 filed on April 16, 1990, and entitled "Multiple Format Telephonic Interface Control System," now abandoned, and a continuation-in-part of Application Serial No. 07/640,337 filed on January 11, 1991, and entitled "Telephonic-Interface Statistical Analysis System", which is a continuation of Application Serial No. 07/335,923 filed on April 10, 1989, and entitled "Telephonic-Interface Statistical Analysis System," which is a continuation of Application Serial No. 07/194,258 filed on May 16, 1988, and entitled "Telephonic-Interface Statistical Analysis System," now U.S. Patent No. 4,845,739, which is a continuation-in-part of Application Serial No. 07/018,244 filed on February 24, 1987, and entitled "Statistical Analysis System For Use With Public Communication Facility," now U.S. Patent No. 4,792,968, which is a continuation-in-part of Application Serial No. 06/753,299 filed on July 10, 1985, and

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entitled "Statistical Analysis System For Use With Public Communication Facility;" now abandoned, said Application Serial. No. 07/509,691, is a continuation-in-part of Application Serial No. 07/260,104 filed on October 20, 1988, and entitled "Telephonic Interface Control System," now U.S. Patent No. 4,930,150, which is a continuation-in-part of Application Serial No. 07/018,244 filed on February 24, 1987, and entitled "Statistical Analysis System For Use With Public Communication Facility," now U.S. Patent No. 4,792,968, which is a continuation-in-part of Application Serial No. 06/753,299 filed on July 10, 1985, and entitled "Statistical Analysis System For Use With Public Communication Facility," now abandoned.

Also, said Application Serial No. 08/132,062 is directly a continuation-in-part of Application Serial No. 07/335,923 filed on April 10, 1989, and entitled "Telephonic-Interface Statistical Analysis System," which is a continuation of Application Serial No. 07/194,258 filed on May 16, 1988, and entitled "Telephonic-Interface Statistical Analysis System," now U.S. Patent No. 4,845,739, which is a continuation-in-part of Application Serial No. 07/018,244 filed on February 24, 1987, and entitled "Statistical Analysis System For Use With Public Communication Facility," now U.S. Patent No. 4,792,968, which is a continuation-in-part of Application Serial No. 06/753,299 filed on July 10, 1985, and entitled "Statistical Analysis System For Use With Public Communication Facility," now abandoned,. The benefit of the earlier filing dates in the United States is claimed under 35 U.S.C. § 120.—

10. INVENTORSHIP STATEMENT

☒ With respect to the prior co-pending U.S. application from which this application claims benefit under 35 U.S.C. 120, the inventor(s) in this application is (are):

☒ the same

☐ less than those named in the prior application and it is requested that the following inventor(s) identified above for the prior application be deleted:

[type name(s) of inventor(s) to be deleted]

☒ The inventorship for all the claims in this application are:

☒ the same

☐ not the same, and an explanation, including the ownership of the various claims at the time the last claimed invention was made, is submitted.

11. **ASSIGNMENT**

☒ The prior application is assigned of record to <u>Ronald A. Katz Technology Licensing, L.P.</u>

<u>Ronald A. Katz Technology Licensing, L.P.</u>
Name of Assignee

<u>9200 Sunset Boulevard, Suite 1005, Los Angeles, California 90069</u>
Address of Assignee

_____
Title of person authorized to sign on behalf of assignee

Assignment recorded in PTO on <u>September 26, 1994</u>, Reel <u>7133</u>, Frames <u>090-100</u>

☐ An Assignment of the invention to _____ is attached.

12. **FEE PAYMENT BEING MADE AT THIS TIME**

☐ Not attached. No filing fee is submitted. [This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.]

☒ Attached.

    ☒ Filing fee. <u>$760.00</u>

    ☐ Recording assignment. [**$40.00** 37 CFR 1.21(h)(1)]
       Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached.
       [**$130.00**; 37 CFR 1.47 and 1.17(h)]

    ☐ Petition fee to Suspend Prosecution for the Time Necessary to File an Amendment (New Application Filed Concurrently.
       [**$130.00**; 37 CFR 1.103 and 1.17(i)(1)]

    ☐ For processing an application with a specification in a non-English language.
       [**$130.00**; 37 CFR 1.52(d) and 1.17(k)]

    ☐ Processing and retention fee.
       [**$130.00**; 37 CFR 1.53(d) and 1.21(l)]

Total Fees Enclosed <u>$760.00</u>

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13. **METHOD OF PAYMENT OF FEES**

⊠ Attached is a check in the amount of <u>$760.00</u>.

☐ Charge Deposit Account No. **12-2475** in the amount of <u>$0.00</u>.

14. **AUTHORIZATION TO CHARGE ADDITIONAL FEES**

The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Deposit Account No. **12-2475**:

⊠ 37 CFR 1.16 (filing fees)

⊠ 37 CFR 1.16 (presentation of extra claims)

⊠ 37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)

☐ 37 CFR 1.17 (application processing fees)

☐ 37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b))

15. **INSTRUCTIONS AS TO OVERPAYMENT**

⊠ Credit Deposit Account No. **12-2475**.

☐ Refund

16. **POWER OF ATTORNEY**

☐ The power of attorney in the prior application is to

⊠ The power of attorney in the prior application is to the registered attorneys listed below and members of or associates in the law firm of **LYON & LYON LLP**, 633 West Fifth Street, 47th Floor, Los Angeles, California 90071, Registration No. 11,611, whose members are registered to practice in the U.S. Patent and Trademark office:

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Roland N. Smoot, Reg. No. 18,718
Conrad R. Solum, Jr., Reg. No. 20,467
James W. Geriak, Reg. No. 20,233
Robert M. Taylor, Jr., Reg. No. 19,848
Samuel B. Stone, Reg. No. 19,297
Douglas E. Olson, Reg. No. 22,798
Robert E. Lyon, Reg. No. 24,171
Robert C. Weiss, Reg. No. 24,939
Richard E. Lyon, Jr., Reg. No. 26,300
John D. McConaghy, Reg. No. 26,733
William C. Steffin, Reg. No. 26,811
Coe A. Bloomberg, Reg. No. 26,605
J. Donald McCarthy, Reg. No. 25,119
John M. Benassi, Reg. No. 27,483
James J. Shalek, Reg. No. 29,749
Allan W. Jansen, Reg. No. 29,035
Robert W. Dickerson, Reg. No. 29,914
Roy L. Anderson, Reg. No. 30,240
David B. Murphy, Reg. No. 31,125

James C. Brooks, Reg. No. 29,898
Jeffrey M. Olson, Reg. No. 30,790
Steven D. Hemminger, Reg. No. 30,755
Jerrold B. Reilly, Reg. No. 32,293
Paul H. Meier, Reg. No. 32,274
John A. Rafter, Jr., Reg. No. 31,653
Kenneth H. Ohriner, Reg. No. 31, 646
Mary S. Consalvi, Reg. No. 32,212
Lois M. Kwasigroch, Reg. No. 35,579
Lawrence R. LaPorte, Reg. No. 38,948
Robert C. Laurenson, Reg. No. 34,206
Carol A. Schneider, Reg. No. 34,923
Hope E. Melville, Reg. No. 34,874
Michael J. Wise, Reg. No. 34,047
Richard J. Warburg, Reg. No. 32,327
and
Reena Kuyper, Reg. No. 33,830

☒ The power appears in the original papers in the prior application.

☐ The power does not appear in the original papers, but was filed on _____ in this application.

☐ A new power has been executed and is attached.

☒ Address all future communications to:

LYON & LYON LLP
633 West Fifth Street, 47th Floor
Los Angeles, California 90071
(213) 489–1600
Attention: Reena Kuyper

17. MAINTENANCE OF CO-PENDENCY OF PRIOR APPLICATION

☐ A petition, fee and response has been filed to extend the term in the pending **prior** application until _____. A copy of the petition for extension of time in the **prior** application is attached.

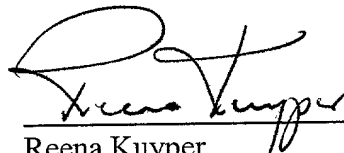## 18. CONDITIONAL PETITIONS FOR EXTENSION OF TIME IN PRIOR APPLICATION

☐ A conditional petition for extension of time is being filed in the pending **prior** application. A copy of the conditional petition for extension of time in the **prior** application is attached.

19. ABANDONMENT OF PRIOR APPLICATION

☐   Please abandon the prior application at a time while the prior application is pending or when the petition for extension of time or to revive in that application is granted and when this application is granted a filing date so as to make this application co-pending with said prior application. At the same time, please add the words "now abandoned" to the amendment of the specification set forth in Item 13 above.

Respectfully submitted,

LYON & LYON LLP

Dated: <u>May 17, 1999</u>

By: Reena Kuyper
Registration No. 33,830
Attorneys for Applicants

633 West Fifth Street, Suite 4700
Los Angeles, California 90071-2066
(213) 489–1600

Enclosures

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:)	Group Art Unit [Parent Case]: 2743
)	
Ronald A. KATZ)	Examiner [Parent Case]: Woo, Stella
)	
Serial No. Not Yet Assigned)	
)	
Filed: Herewith)	
)	
For: TELEPHONE INTERFACE CALL)	
PROCESSING SYSTEM WITH CALL)	
SELECTIVITY)	

PRELIMINARY AMENDMENT

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C.   20231

Sir:

Prior to examination, please amend the above-identified application as follows:

IN THE CLAIMS:

Please add claims 17-22 as follows and cancel claim 1, without prejudice.

17.   A telephone call processing system for receiving calls through a telephone communication facility from a multitude of terminals for processing in an interface format wherein callers are cued by voice signals supplied to said multitude of terminals and respond with digital signals, as by actuating push buttons at said multitude of terminals, said system receiving digital signals indicative of DNIS, said system comprising:

CERTIFICATE OF MAILING UNDER 37 CFR 1.10

I hereby certify that this document (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as Express Mail (Label No. EM542080900US) in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C., 20231.

Date: May 17, 1999   _Connie Kwon_
                                   Connie Kwon

LA-90081.1

means for selectively receiving calls from said multitude of terminals to establish telephone communication with a select subset of callers utilizing calling number identification signals automatically provided by a telephone facility, said interface format selected by said digital signals indicative of DNIS;

means for providing identification signals for said callers of said select subset;

means for individually cuing said callers of said select subset to provide digital signals for processing to isolate a sub-subset of said callers; and

means for storing identification signals for said callers of said sub-subset.

18.   A telephone call processing system according to claim 17, further comprising:

a random number generator for isolating said sub-subset of said callers.

19.   A telephone call processing system for receiving calls from a multitude of terminals for processing in an interface format wherein callers are cued by voice signals supplied to said multitude of terminals and respond with digital signals, as by actuating push buttons at said multitude of terminals, said system comprising:

means for receiving calls from said multitude of terminals and establishing telephone communication to select a subset of callers based upon online responses provided by said select subset of callers to questions, said means for receiving calls utilizing automatic number identification signals associated with a calling terminal automatically provided by a telephone facility;

means for providing identification signals for said callers of said select subset; and

means for processing data relating to said callers of said select subset to isolate a sub-subset of said callers.

20.   A telephone call processing system according to claim 19, further comprising:

a random number generator for isolating said sub-subset of said callers.

21.   A telephone call processing system for receiving calls from a multitude of terminals for processing in an interface format wherein callers are cued by synthesized voice

signals supplied to said multitude of terminals and respond with digital signals, as by actuating push buttons at said multitude of terminals, said system comprising:

means for selectively receiving calls from said multitude of terminals to establish telephone communication with a select subset of callers, said means for selectively receiving calls comprising means for receiving calls in a plurality of call modes including a toll free calling mode and a caller charge calling mode;

means for providing identification signals for said callers of said select subset;

means for individually cueing said callers of said select subset to prompt digital signals for processing to isolate a sub-subset of said callers; and

means for storing identification signals for said callers of said sub-subset.

22.   A telephone call processing system for receiving calls from a multitude of terminals for processing in an interface format wherein callers are cued by synthesized voice signals supplied to said multitude of terminals and respond with digital signals, as by actuating push buttons at said multitude of terminals, said system comprising:

means for receiving calls from said multitude of terminals and establishing telephone communication to select a subset of callers based upon online responses provided by said select subset of callers to questions, said means for receiving calls comprising means for receiving calls in a plurality of call modes including an "800" toll free calling mode and a caller charge calling mode;

means for providing identification signals for said callers of said select subset; and

means for processing data relating to said callers of said select subset to isolate a sub-subset of said callers.

REMARKS

By this preliminary amendment, applicant is canceling claim 1, without prejudice, and introducing claims 17-22 for the Examiner's consideration. Claims 17-22 are generally similar

to claims 20-25 of the parent co-pending application Serial No. 08/480,185. Consideration of these claims in the present application is respectfully requested.

Respectfully submitted,

LYON & LYON LLP

Dated: May 17, 1999   By: _____

Reena Kuyper
Registration No. 33,830

633 West Fifth Street, Suite 4700
Los Angeles, California 90071-2066
(213) 489-1600

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TELEPHONE INTERFACE CALL PROCESSING
SYSTEM WITH CALL SELECTIVITY

Related Subject Matter

5   This is a continuation-in-part of Application Serial No. 312,792 filed February 21, 1989, and entitled "Voice-Data Telephonic Control System".

Background and Summary of the Invention

10   Recent years have seen a considerable growth in the use of telephonic communications. For example, in various applications, telecommunications applications have expanded to accommodate voice-digital interfaces between computer apparatus and

15   callers at remote telephone terminals. For example, by actuating the push buttons at a remote telephone terminal, a caller controls a computer apparatus to provide various entertainment or information. In using such a system, a caller might telephone a

20   financial service and selectively actuate the telephone key panel to receive information on specific stocks or bonds.

         Digital interface systems also have been implemented to utilize digital signals provided

25   independently of the caller's actions. For example, the so-called "ANI" telephone equipment provides

digital signals indicating a caller's telephone number. Equipment designated "DNIS" is similarly available to indicate the called number. Thus, digital signals may be provided telephonically to a system associated with individual calling terminals as for identification or other use.

Telephonic games and contests are among the various applications that have been recognized for implementation with telephone interface systems. Such games and contests may be variously presented, as in cooperation with an advertising program for a product or in a lottery format. Generally with respect to such applications, various call modes might be utilized.

Essentially, three telephonic calling modes or services are in widespread use. Specifically, caller-charge or "900" service (including "976" calls) involves a charge to the caller for each call. The "900" calling mode is useful for implementing games and contests with telephone interface systems; however, certain problems are encountered. Specifically, certain telephone terminals, e.g. pay phones, do not accommodate "900" service. Also, with respect to certain forms of games and contests, it is important to offer members of the public an alternative "free" method of participation. In general, the system of the present invention may be employed to implement "900" calling modes while accommodating "free" participation with reasonable control.

Telephone calls may be accommodated without charge using "800" service or calling mode. Generally, the "800" calling mode accommodates free calls by callers in various areas to a particular station incurring the charges. In most applica-

tions, it is important to regulate the use of the "800" calling mode. Another calling mode is the traditional method of calling, involving area-code numbers which also includes calls placed within a

5 given area code which do not usually involve a specific charge and usually do not require dialing the area code. One of the problems associated with using the area-code calling mode for interface systems is the vast number of calls. For example,

10 even in association with an advertising campaign, inviting members of the general public to participate in a free contest or game by telephone may prompt an overwhelming response. Accordingly, a need exists for a practical system to control and

15 limit calls to an interface service in the traditional free area-code number mode.

Another aspect of telephonic-interface contests involves zealous or obsessive participants. For example, in a quiz contest, a zealous person

20 might call repeatedly, researching answers to given questions until ultimately a question is repeated. At that time, the caller is ready with an answer and has an unfair advantage in the contest. Thus, a need exists for control within the interface system.

25 In general, the system of the present invention involves a telephone call processing system for receiving calls from a multitude of terminals in different call modes and for processing calls, as to a game or contest format, with means to

30 limit repeat-call advantages. In a disclosed form, the system implements three calling modes to facili-tate various formats while accomplishing certain protection both with regard to the calling mode and contest formats.

35

Brief Description of the Drawings

In the drawings, which constitute a part of this specification, exemplary embodiments exhibiting various objectives and features hereof are set forth, specifically:

FIGURE 1 is a block diagram of a system constructed in accordance with the present invention; and

FIGURE 2 is a flow diagram of an operating format of the system of FIGURE 1.

Description of the Illustrative Embodiment

As required, a detailed illustrative embodiment of the present invention is disclosed herein. However, telephone techniques, physical communication systems, data formats and operating structures in accordance with the present invention may be embodied in a wide variety of forms and modes, some of which may be quite different from those of the disclosed embodiment. Consequently, the specific structural and functional details disclosed herein are merely representative, yet in that regard, they are deemed to afford the best embodiment for purposes of disclosure and to provide a basis for the claims herein which define the scope of the present invention.

Referring initially to FIGURE 1, a series of remote terminals T1-TN (telephone instruments) are represented (left). The terminals T1-TN may be functionally similar and accordingly only the terminal T1 is shown in any detail. The indicated terminals T1-TN represent the multitude of telephone terminals existing in association with a communication facility CO which may comprise a comprehensive public telephone network.

The communication facility CO, accommo-
dating the individual terminals T1-TN, is coupled to
a central processing station CS generally indicated
within a dashed-line block. In the station CS, to
illustrate operating aspects of the present inven-
tion, calls are selectively accepted and interfaced
so as to accomplish a desired operating format, for
example a contest or game.

Generally, calls from the individual
terminals T1-TN might be in any of three modes, i.e.
the "800" mode, the "900" mode or the area-code mode
(traditional area code plus number or local number
dialing). In the disclosed illustrative system,
depending on individual calling modes, calls are
selectively accepted for interface processing.
Generally, the interface format accommodates "900"
calls with supplemental "800" calls to accommodate
both "free" access and all types of telephone termi-
nals. In the disclosed embodiment, calls in the
"800" mode are restricted in accordance with prear-
ranged limitations. Furthermore, calls in the area-
code mode (from all areas), the 800 mode and 900
mode may be limited to callers having a station
number containing a predetermined digit sequence.
For example, calls might be restricted to those from
terminals having a telephone number ending in the
digits "234".

The processing station CS also is con-
trolled to limit the effectiveness of zealous
callers. For example, in a contest format, callers
may be quizzed with questions randomly drawn from an
inventory. In accordance herewith, questions are
not repeated to individual telephone terminals T1-
TN. Thus, some control is imposed on an aggressive

caller who might otherwise be given two oppor-
tunities to answer the same question.

Considering the system of FIGURE 1 in
greater detail, the exemplary telephone terminal T1
includes a handpiece 10 (microphone and earphone)
and a panel 12 provided with a rectangular array of
individual push buttons 14 in a conventional confi-
guration. Of course, the handpiece 10 accommodates
analog signals while the panel 12 is a digital appa-
ratus. During an interface operation, as disclosed
in detail below, the caller is queued or prompted
vocally through the handpiece 10 (earphone) to
provide digital responses using the buttons 14.

At this stage, some specific aspects of
the communication interface are noteworthy. Essen-
tially, as a result of telephonic dialing at one of
the terminals T1-TN, the communication facility CO
couples the select terminal to an audio response
unit. Specifically, to illustrate various aspects,
three separate audio response units are provided in
the station CS to accept calls in the three distinct
modes. That is, an audio response unit 18 receives
calls in the "800" mode. An audio response unit 20
receives calls in the area-code dialing mode, and an
audio response unit 22 receives calls in the "900"
dialing mode.

It will be understood that although three
separate audio response units are illustrated,
systems incorporating the principles of the present
invention may well incorporate various numbers of
audio response units for each calling mode, with
each audio response unit having the capability to
accommodate a substantial number of calls as indi-
cated by the lines from the communication facility
CO in FIGURE 1. Alternatively, a single composite

unit might be utilized. Also, the mode or aspects of the described embodiment might well be implemented singly or in various combinations. Herein, for purposes of explanation, calls are treated individually and processed accordingly through the three audio response units 18, 20 and 22.

Generally, the audio response units 18, 20 and 22 connect callers at remote terminals T1-TN from the communication facility CO through a coupler 24 (FIGURE 1, station CS, center) to an interface processor 26. Both the coupler 24 and the processor 26 are connected to a control unit 28 that is also connected to the audio response units 18, 20 and 22. Accordingly, with overall supervision by the control unit 28, the audio response units 18, 20 and 22 answer and preliminarily qualify callers from the terminals T1-TN for connection through the coupler 24 to the interface processor 26.

Upon completion of an interface connection in the disclosed embodiment, a contest format is executed by vocally prompting callers to respond with digital data. At this point, it is noteworthy that the communication facility CO also provides identification signals to the audio response units 18, 20 and 22. Specifically, digital identification signals representing numbers associated with the calling terminals T1-TN are provided by "ANI" equipment independent of any action by the caller. In the event "ANI" equipment is not available, callers may be vocally prompted to provide the digital representations by selectively depressing the buttons 14.

The telephone communication facility CO also may provide digital signals indicating the called number. Generally, such a capability invol-

ves equipment designated "DNIS". The capability may be useful in various embodiments of the present system, as to distribute calls from a single equipment as mentioned above.

5   Pursuing the exemplary structure of FIGURE 1 in still greater detail, the communication facility CO provides three sets of trunks or lines LA1, LA2 and LA3 respectively coupled to the audio response units 18, 20 and 22. From the audio response

10   units 18, 20 and 22, sets of lines LB1, LB2 and LB3 are connected to the coupler 24. Under control of the control unit 28, the coupler 24 connects individual lines 37 of the sets LB1, LB2 and LB3 to the processor 26 through lines 39.

15   Generally, the audio response units 18, 20 and 22 may take the form of well known telephonic structures with the capability to "answer" calls and interface callers in a preliminary way. Each of the units 18, 20 and 22 incorporate a voice generator

20   along with some basic programmable logic capability.

The audio response unit 18 is coupled to a free-call memory 32. Generally, the unit 18 in cooperation with the memory 32 operates with the control unit 28 to qualify acceptable calls in the

25   "800" mode.

The audio response unit 20 is connected to a select-number coincidence detector 34. These structures along with the control unit 28 test area-code mode calls. The audio response unit 22 accepts

30   calls without initial qualification.

The system of the disclosed embodiment selectively qualifies callers depending on their calling mode. Additionally, the system responds to caller identification to enhance contest equity.

35   Generally, the interface processor 26 poses ques-

tions to calling contestants and stores the resulting answers in a result memory 36. Questions given to contestants are selected from a memory 38 by a random number generator 40. Essentially, the memory 38 contains an inventory of questions addressable by numbers provided by the random number generator 40. The address numbers from the generator 40 are also supplied to a coincidence detector 42 that also receives the address numerals of questions previously presented to a specific caller from a record 44. Thus, before a question is presented to a caller, the number of the calling terminal is checked to assure that the same question has not previously been posed to a caller at that terminal.

If the coincidence detector 42 clears the current question as not being repetitive, a gate 46 is qualified and the question is supplied from the memory 30 to the interface processor 26. A voice generator within the interface processor 26 then provides signals through a designated line 39, the coupler 24, a line 37, one of the audio response units and the communication facility CO to the connected remote terminal. As a result, the caller hears a simulated voice question. The answer is provided by the caller actuating the buttons 14 at the calling terminal. In that regard, the question may be in a multiple choice or true-false format to accommodate simple push button actions at the terminal.

In view of the above description of structural elements in the disclosed embodiment, a comprehensive understanding of the system may now best be accomplished by assuming certain operating conditions and describing the resulting operations. Accordingly, assume that the system CS is programmed

to accommodate a relatively simple game format, that is, a sponsored contest for the promotion of a product, e.g. the XYZ Widget. Further assume the contest is of limited participation based either upon: the payment of a token fee ("900" calling mode), prearranged participation ("800" calling mode), lottery selection (area-code calling mode) or lottery selection in combination with either 800 or 900 calling modes. Considering exemplary possibilities of the format, the XYZ Widget might be advertised with an invitation to participate via the "900" calling mode. Alternatively, participants might be variously qualified as by select notification; however, in the exemplary format, such participants would incur a token charge imposed through "900" telephonic service. To consider an example, an offering might be stated: "If your last three phone digits are 972 you may call, 1) if you wish, call 1 900 XXXX972 ($0.95 service charge) provided your last three phone digits are 972; 2) if you have written in for a 'free to enter' you can use the one-time PIN number provided your last three phone digits are 972. In this case you can use the 'free' 800 number provided to you with your PIN number."

As indicated above, some telephone terminals do not accommodate "900" calling mode. Also, under certain circumstances, it is important to afford members of the public "free" access to participate in various games or contests. For example, such participation might be arranged by mail or other communication to provide a participant with a limited-use (i.e. one) qualification number. With use, the numbers are stored in the memory 32 and the list is checked subsequently to avoid repeat use.

A third class of contest participants might be considered lottery winners. For example, the sponsor might televise a drawing of three decimal digits to provide a sequence of three numbers. The three numbers might identify "winning" or "entitled" participants by corresponding to the last three numbers (digits) of their telephone number. For example, the drawing of the numbers "257" would entitle a single call participation from any of the telephone terminals T1-TN designated by a number, the last three digits of which are "257".

In an exemplary contest format, participants might be asked a few test questions (for minor prizes and the ability to participate in a lottery). Of course, a vast variety of possibilities exist; and in that regard, interim prizes may be awarded to participants as the format proceeds from the initial call to the ultimate prize. At the present point, it is important to appreciate that the system accommodates participants using various telephone call modes with select qualification to participate in an interface format utilizing voice prompt and push-button digital communication. In accordance with the described example, the sponsor invites participants to enter using "900" calling mode service. As a part of such an invitation, persons are advised that "free" entry or participation may be gained by sending a self-addressed envelope to receive an entry number, e.g. eight digits, for use via "800" calling mode service. In the disclosed embodiment, the eight-digit numeral is coded for verification. Of course, numerous possibilities exist. As a simple example the second and sixth digits of the number might have a specific sum, e.g. seven or seventeen. That is,

the second and sixth digits might be: three and
four, five and two, six and one, seven and zero,
nine and eight and so on. A qualifying number would
be: "34726313", the second and sixth digits being

5   four and three, respectively.

With the arrangements completed for
calling entries in the "900" and "800" mode, the
contest might operate for several days before being
opened to area-calling participants. That is, the

10   area-calling mode might be available only after a
televised drawing entitling participation from a
select group of telephone numbers for a limited
period of time.

In view of the above assumptions and

15   descriptions, consider now the operation of the
system as depicted in FIGURE 1 in relation to the
process diagram of FIGURE 2. That is, assume the
system of FIGURE 1 is implemented and programmed to
accommodate the exemplary operations as will now be

20   described with reference to the process diagram of
FIGURE 2.

First, suppose a caller at the terminal T1
places a call in the "900" mode in response to an
advertisement by a sponsor promoting XYZ Widgets.

25   Perhaps the caller will receive at least a token
gift and might qualify for a major lottery prize.

The assumed call involves the caller actu-
ating the buttons 14 as for example to input:
"1 900 5558945". As a result, signals are provided

30   to the communication facility CO resulting in a
connection from the remote terminal T1 to the audio
response unit 22. With the connection, the commu-
nication system CO also provides the audio response
unit 22 with digital identification signals repre-

35   sentative of the designation for remote terminal T1

("212 627 2222"). The identification signals are
provided by the ANI equipment within the communi-
cation facility CO and are registered by the audio
response unit 22. The operation is illustrated as a
5   process step in FIGURE 2 by the block 50 (upper
right) for "900" mode calls.

As suggested above, it may be desirable
for a format to provide a token award to all callers
in the "900" mode. Recognizing such particulars as
10   possibilities, in the disclosed embodiment, calls in
the "900" mode are passed through the audio response
unit 22 (FIGURE 1) and the coupler 24 to the inter-
face processor 26. Accordingly, the interface pro-
cessor 26 receives the calling number and processes
15   the contest format as described in detail below.

The initial step of the format common to
all call modes is represented by the block 52 in
FIGURE 2. However, as calls in all modes are pro-
cessed similarly from that point, before proceeding
20   with the explanation, the preliminary operations
attendant other calling modes first will be
explained.

As explained above, certain accommodations
are made for participation in the "800" (caller
25   free) mode. Accordingly, assume a caller at the
terminal T1 has been given an identification number:
"34726313" for use in the "800" mode. Accordingly,
the caller dials a number, e.g. "800 555 3478",
actuating the terminal T1 and the communication
30   facility CO to provide a connection with the audio
response unit 18. With communication, the audio
response unit actuates an internal voice generator
prompting the caller to key in his assigned number,
"34726313". As the digits of the number are keyed
35   in by the caller, they are supplied from the audio

response unit 18 to the control unit 28 and the free-call memory 32.

Within the control unit 28, logic is provided for verifying the identification number as proper. In accordance with the simple example explained above, the control unit 28 would simply sum the second and sixth digits to test for a total of "7". The coincidence test is represented by the query block 56 in FIGURE 2. As indicated above, various codes and verification techniques are well known along with the apparatus for verifying assigned numbers.

If the control unit 28 validates the qualification number "34726313", it is recorded in the free-call memory 32 for future checking against repeat use. Accordingly, each call in the "800" mode also involves a check or test from the audio response unit 18 to the memory 32 to determine whether or not the assigned qualification number has been previously used. The previous-use test is illustrated as a process step by the query block 58 in FIGURE 2.

If the control unit 28 determines the qualification number to be invalid or the memory 32 reveals the number has been previously used, the communication is aborted by the audio response unit 18. For example, the audio response unit 18 may be actuated to provide simulated audio signals carrying a message terminating the communication. For example, the caller might be advised: "The number you have provided is not valid. Consequently, your participation cannot be accepted on that basis."

If the entered number is valid and has not been previously used, the tests indicated by the query blocks 56 and 58 (FIGURE 2) are positive and

the process again proceeds to the common step as indicated by the block 52, e.g. as to receive a token gift.

As indicated above, a third possibility for contest participation involves calling in the area-code mode. While numerous format possibilities exist, as suggested above, access for callers in the area-code mode might be limited to a relatively short period of time. For example, a television program advertising the XYZ Widget might include a drawing to select the telephone terminals from which callers may participate for a period of twenty-four hours. As indicated above, the drawing might identify the last three digits of telephone numbers for the approved terminals.

Following a relatively short time (e.g. one day) during which area-code callers may enter the contest, the contest might be concluded with the ultimate winner or winners determined. In any event, assume the presence of a caller at the terminal T2 with an approved telephone number, i.e. "212 627 2257". Somewhat as explained above with respect to other calling modes, keying operations by the caller at the remote terminal T2 result in a connection through the communication system CO to the audio response unit 20. As previously, the communication facility CO provides digital signals to the audio response unit 20 indicating the calling number (ANI). Thus, the calling number is registered as indicated by the block 62 in FIGURE 2. As previously, in the event ANI equipment is not operative to serve the remote terminal T2, then the caller may be asked to key in his telephone number for subsequent verification.

From the audio response unit 20, the
caller's number is supplied to the coincidence
detector and storage unit 34 for a two-stage test.
A first test simply seeks a coincidence between the
5   approved number sequence (three digits) and the last
three digits of the calling number. In the example,
the last three digits of the calling number ("257")
are compared with the select digit sequence, "257".
The test is indicated by the query block 64 in
10   FIGURE 2.

As a secondary test, the unit 34 may check
a record of previous use. Thus, the unit 34 simply
implements test logic to accomplish these
comparison-step operations with structures as well
15   known in the prior art.

If the tests are negative, as indicated by
the query block 64, the communication is aborted as
indicated by the block 60. Alternatively, a favor-
able test again directs the system to proceed to the
20   step of block 52 at which the process enters a
common phase for all calling modes.

With the entry of a call into the common
phase, the line carrying the call is connected
through the coupler 24 (FIGURE 1) to the interface
25   processor 26. That is, depending on the call mode,
the call is passed through one of the audio response
units 18, 20 or 22 and the coupler 24 to the inter-
face processor 26. Note that as indicated above,
each of the audio response units 18, 20 and 22 is
30   capable of accommodating a large number of asynchro-
nous calls. Similarly, the coupler 24 is capable of
connecting lines from the audio response units 18,
20 and 22 (LB1, LB2 and LB3 respectively) to the
interface processor on an individual basis through
35   lines 37 and 39.

The interface processor 26 may comprise a relatively substantial computing capability for processing many individual calls with programmed variations. The processing operation is illustrated in FIGURE 2 beginning with the block 52. However, note that as the interface processor 26 receives the telephone number identifying a calling terminal (ANI) reference may be made to a data bank. Therefore, the operation might involve reference to substantial data on a caller. Accordingly, a basis exists for several process variations accommodated by data from a bank. The block 52 represents such possibilities as well as further informing or processing callers.

With the receipt of a call at the interface processor 26, a voice generator may be actuated to specifically inform a caller, depending upon the specific format employed. Essentially, digital signals are provided to actuate a voice generator within the processor 26. Accordingly, an audio message is provided through the coupler 24, the associated audio response unit, and the communication facility CO to the connected remote terminal. Thus, the caller may be further informed or cued.

In the disclosed embodiment, concurrently with the operation of further informing the caller, the interface processor 26 actuates the random number generator 40 to provide a random address for the question memory 38. The process step is illustrated in FIGURE 2 by the block 66.

The random number (identifying a question in the memory 38) is also provided to the coincidence detector 42 to test for the previous use of the question to the calling terminal. In that regard, the interface processor 26 provides the

caller telephone number (ANI) to the caller record 44 which may simply take the form of a look-up table addressed by calling numbers and revealing the identification of previous questions propounded. The addresses of questions previously recorded for a calling number are supplied to the coincidence detector 42 for comparison with the current tentative question identification number. The process step is illustrated by the query block 68 in FIGURE 2.

If the tentative question has been previously used for the calling terminal, a signal is provided from the coincidence detector 42 to the interface processor prompting a repeat operation by the random number generator 40 to select another question.

Alternatively, if the tentative question is not a repeat, then the coincidence detector 42 qualifies the gate 46 and the tentative question is supplied to the interface processor 26 for actual use. Note that upon the occurrence of an approved question, the coincidence detector also supplies a signal to the call record 44 which records the identification number of the question. The process step is illustrated in FIGURE 2 by the block 70.

With the provision of signals representing a question through the gate 46 to the interface processor 26, the internal voice generator is actuated to propound the question to the caller. Recognizing the vast possibilities for contest formats, one or more rather difficult questions might be propounded to isolate lottery participants. Alternatively, a relatively easy question may be propounded as a minor obstacle to participation in the final phase of the contest. In any event, as

prompted or cued, the caller responds using the buttons 14 and the response is registered for testing within the interface processor 26. The process steps are indicated by the block 72 and the query block 74 in FIGURE 2. The results of the tests are then stored in the interface result memory 36. Note that in the interests of human perception, a printed record may be developed concurrently with the qualification of lottery participants.

Final processing to determine a winner or winners may involve any of various operations as a drawing, an event, and so on. Accordingly, as indicated by the blocks 76 and 78, final determinations are made of winners and losers with predetermined prize allocations. Thus, the system of the present invention enables effective regulation and control of interfaces between persons at telephone stations and a central processing apparatus. Calls in various modes are accommodated with appropriate tests, and interface data (e.g. test questions) are qualified.

In view of the above descriptions, it will be apparent that the disclosed embodiment is susceptible to considerable modification in the implementation of the present invention in conjunction with a telephone system to accommodate caller interface operations. Although the disclosed embodiment is directed to a contest, it will be apparent that aspects of the system may be variously embodied to accommodate any of a variety of telephone interface operations. Furthermore, it will be apparent that while the disclosed embodiment comprises specific elements and configurations, any of a variety of structures might well be utilized. Accordingly, the

scope hereof is deemed to be as set forth in the claims below.

5

WHAT IS CLAIMED IS:

1.   A telephone call processing system for receiving calls from a multitude of terminals in different call modes for processing to an interface format and involving digital signals associated with said terminals as for identification or data, said system comprising:

first response unit means for receiving calls in a first call mode;

qualification means for qualifying said calls in a first call mode received by said first response unit to provide qualified calls;

second response unit means for receiving calls in a second call mode;

means for processing calls in an interface format; and

means for coupling said qualified calls and said calls in a second mode to said means for processing.

2.   A system according to claim 1 wherein said first response unit is coupled to receive caller-free "800" type calls.

3.   A system according to claim 2 wherein said qualification means comprises means for testing said digital signals associated with said terminals originating said calls in a first mode.

4.   A system according to claim 3 further including a free-call memory structure tallying said digital signals associated with caller-free "800" type calls and wherein said means for testing tests the content of said memory structure.

1   5. A system according to claim 4 wherein
2 said second response unit is coupled to receive
3 caller-paying "900" type calls.

1   6. A system according to claim 1 wherein
2 said first response unit is coupled to receive area-
3 code type calls.

1   7. A system according to claim 1 wherein
2 said qualification means comprises means for testing
3 said digital signals associated with said terminals
4 originating said calls in a first mode.

1   8. A system according to claim 7 wherein
2 said qualification means comprises a test structure;
3 for testing said digital signals associated with
4 said terminals originating said calls in a first
5 mode.

1   9. A system according to claim 8 wherein
2 said test structure includes means for testing
3 select digits of said digital signals associated
4 with a calling terminal for identification.

1   10. A system according to claim 9 wherein
2 said means for processing includes means for selec-
3 ting interface questions for callers and record
4 means for recording selected interface questions in
5 association with said digital signals for identi-
6 fication.

1   11. A telephone call processing system
2 for receiving calls from a multitude of terminals
3 for processing to an interface format and involving

4   digital signals associated with said terminals as

5   for identification or data, said system comprising:

6   cue means for prompting question responses

7   from said terminals in the form of digital signals

8   as data;

9   question selection means for selecting

10   individual questions from a plurality of questions

11   for actuating said cue means;

12   call record memory means for storing iden-

13   tified questions cued to said terminals, addressable

14   by said digital signals associated with said ter-

15   minals for identification;

16   test means for testing individual ques-

17   tions selected by said question selection means

18   against questions from said call record memory means

19   to detect coincidence; and

20   control means coupled to said cue means,

21   selection means, memory means and test means for

22   sequencing operations to select a question, test the

23   selected question and either actuate said cue means

24   or select another question under control of said

25   test.

1   12. A system according to claim 11

2   wherein said control means includes a gate structure

3   for inhibiting the cue means in the event of selec-

4   ting a question of record in said call record memory

5   means.

1   13. A telephone call processing system

2   for receiving calls from a multitude of terminals

3   for processing to an interface format and involving

4   digital signals associated with said terminals as

5   for identification or data, said system comprising:

6   receiving means for receiving digital
7   signals representative of numbers associated with
8   said terminals for identification;

9   memory means for storing a predetermined
10 sequence of select digits representative of a compo-
11 nent of numbers associated with terminals for iden-
12 tification;

13   means for testing a predetermined compo-
14 nent of select digital signals representative of
15 numbers associated with said terminals for identi-
16 fication from said receiving means against said
17 predetermined sequence of select digits from said
18 memory means to provide a control signal; and

19   means for accepting calls from said termi-
20 nals in accordance with said control signal.

1   14. A system according to claim 13
2 wherein said memory means stores the last three
3 digits of numbers associated with acceptable
4 terminals for identification and controls processing
5 based on acceptance of said calls.

1   15. A system according to claim 13
2 wherein at least three digits are tested based on
3 ANI.

1   16. A system according to claim 13
2 wherein the memory means holds complete phone
3 numbers in memory to prevent duplicate use.

TELEPHONE INTERFACE CALL PROCESSING
SYSTEM WITH CALL SELECTIVITY

Abstract of the Disclosure

5   For use with a public telephone network CO
incorporating a vast number of terminals T1-Tn, a
system CS limits and controls interface access to
implement voice-digital communication for stati-
stical processing. The system CS accommodates calls
10   in different modes, e.g. "800", "900" or area code
and incorporates qualifying apparatus to restrict
against caller misuse. Alternative calling modes
are used to reach an interface facility that also
affords some control based on calling terminal iden-
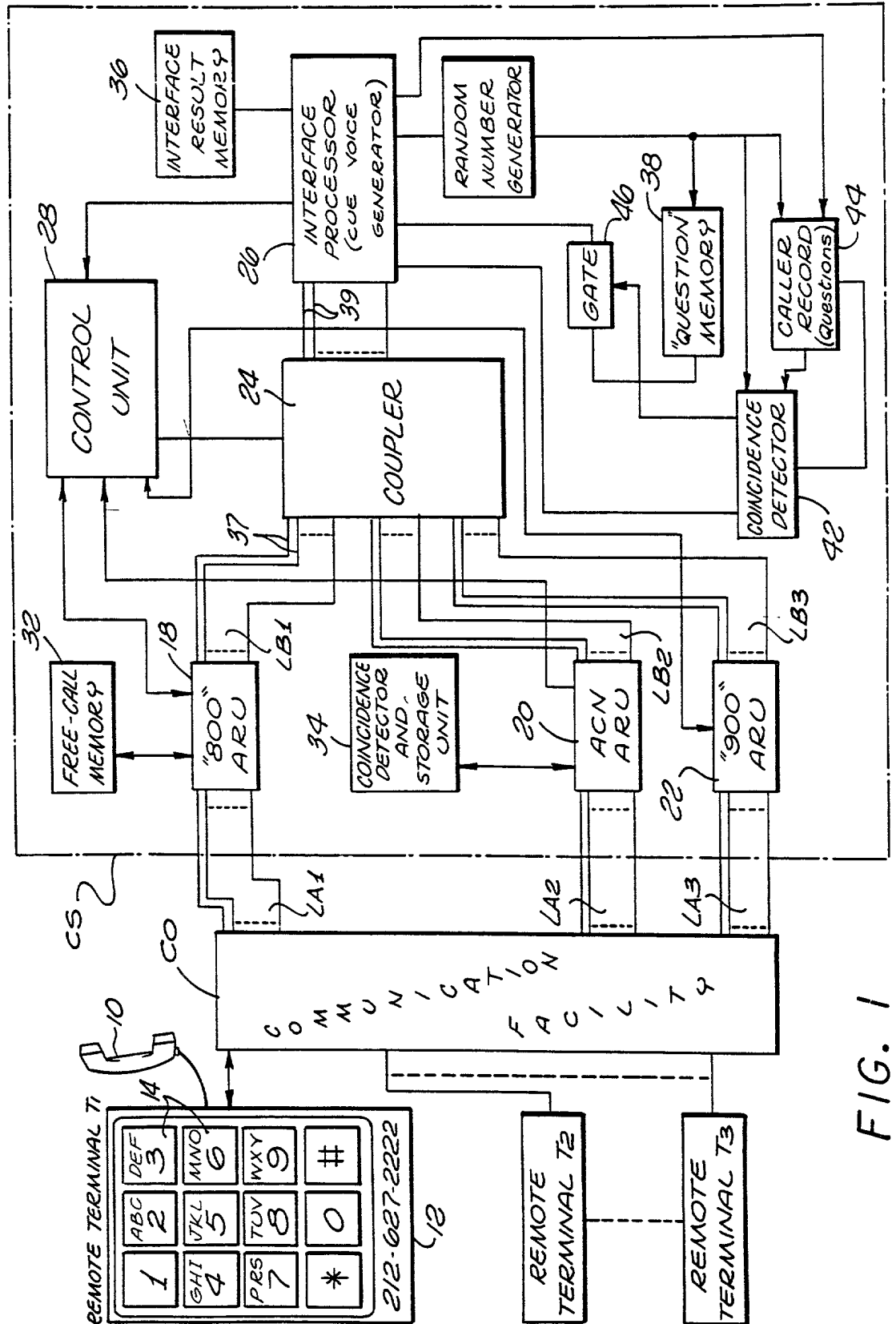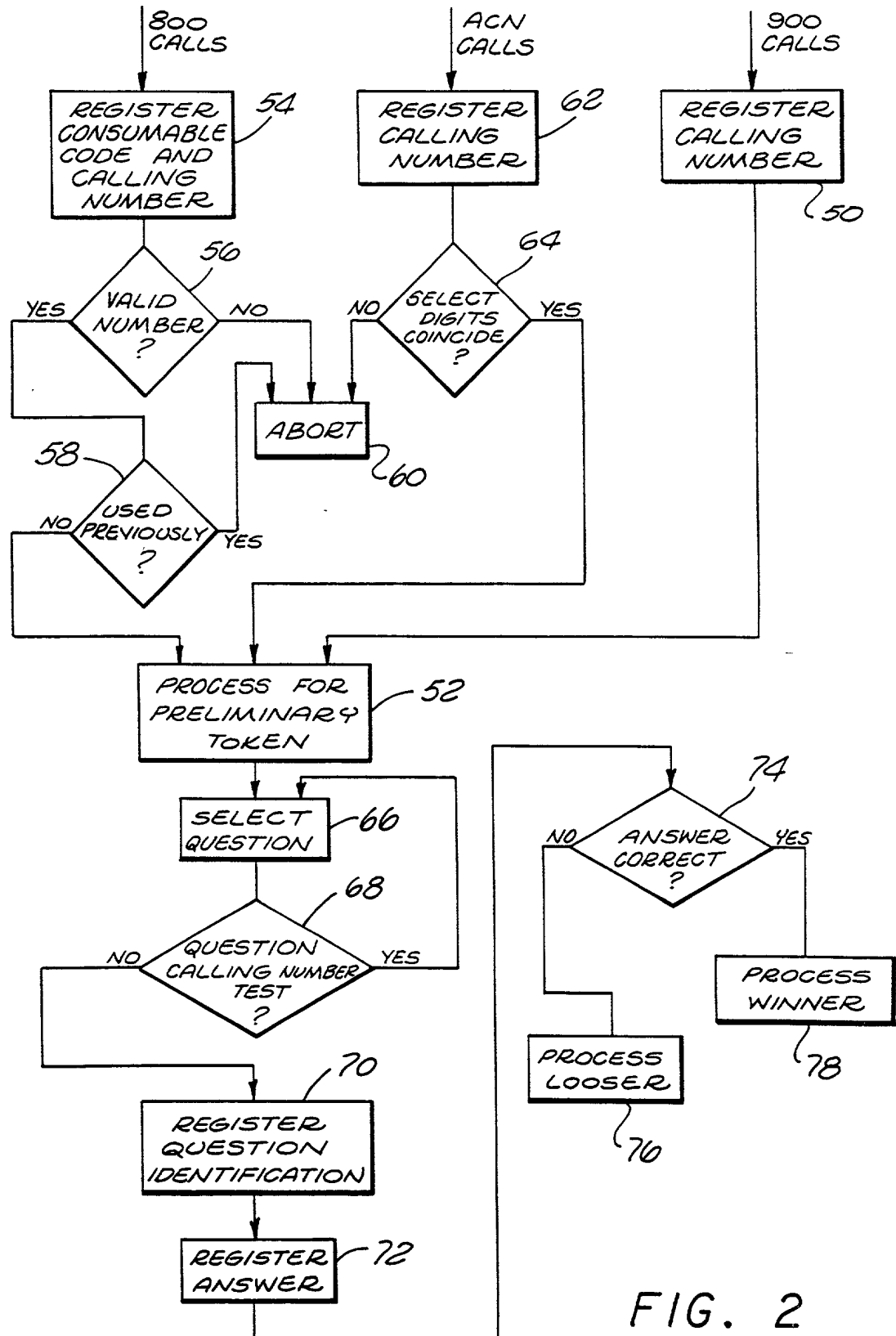15   tification, e.g. as by ANI equipment.

FIG. 1

800 CALLS

ACN CALLS

900 CALLS

REGISTER CONSUMABLE CODE AND CALLING NUMBER — *54*

REGISTER CALLING NUMBER — *62*

REGISTER CALLING NUMBER — *50*

56 — *VALID NUMBER ?* YES / NO

64 — *SELECT DIGITS COINCIDE ?* NO / YES

ABORT — *60*

58 — *USED PREVIOUSLY ?* NO / YES

PROCESS FOR PRELIMINARY TOKEN — *52*

SELECT QUESTION — *66*

68 — *QUESTION CALLING NUMBER TEST ?* NO / YES

REGISTER QUESTION IDENTIFICATION — *70*

REGISTER ANSWER — *72*

74 — *ANSWER CORRECT ?* NO / YES

PROCESS LOOSER — *76*

PROCESS WINNER — *78*

FIG. 2

DECLARATION AND PETITION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled TELEPHONE INTERFACE CALL PROCESSING SYSTEM WITH CALL SELECTIVITY, the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed: None.

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first
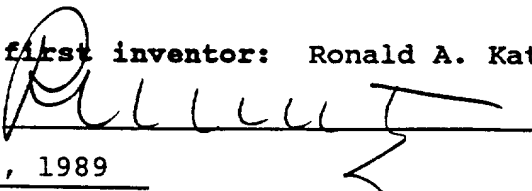
paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

07/312,792	February 21, 1989	Pending
Application Serial No.	Filing Date	Status

     I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

     Wherefore I pray that Letters Patent be granted to me for the invention or discovery described and claimed in the foregoing specification and claims, and I hereby subscribe my name to the foregoing specification and claims, declaration and petition.

Full name of sole or first inventor: Ronald A. Katz

Inventor's signature:

Date: September 27, 1989
Residence: Los Angeles, California
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Ronald A. Katz	)
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Serial No.:	08/132,062	) Examiner: S. Woo
		)
Filed:	October 4, 1993	) Art Unit: 2608
		)
For:	TELEPHONE-INTERFACE CALL	)
	PROCESSING SYSTEM WITH CALL	)
	SELECTIVITY	)
		)
New Docket No.:	6646-114N1	)
(Previous Docket No.: 4646-114N1)		)

POWER OF ATTORNEY BY ASSIGNEE

Commissioner of Patents
      and Trademarks
Washington, D. C. 20231

Sir:

I, Ronald A. Katz, am the President of A2D Corporation, a California corporation, which corporation is a general partner of A2D, L.P., a California limited partnership, which limited partnership is a general partner of RONALD A. KATZ TECHNOLOGY LICENSING, L.P., a California limited partnership and assignee of the entire right, title and interest in the application for United States Letters Patent entitled TELEPHONE INTERFACE CALL PROCESSING SYSTEM WITH CALL SELECTIVITY, and am authorized to sign on its behalf.

The Assignment of this application to RONALD A. KATZ TECHNOLOGY LICENSING, L.P., has been submitted to the Assignment Branch and was received on September 26, 1994.

I have reviewed the foregoing document and hereby certify that, to the best of my knowledge and belief, title to the

1

subject matter of this patent application is in RONALD A. KATZ TECHNOLOGY LICENSING, L.P.

I hereby appoint: Byard G. Nilsson, Reg. No. 17,350, Harold E. Wurst, Reg. No. 22,183, Robert A. Green, Reg. No. 28,301, Anne Wang, Reg. No. 36,045, all members of the bar of one or more states, Reena Kuyper, Patent Agent, Reg. No. 33,830, all of the law firm of Nilsson, Wurst & Green, 707 Wilshire Blvd., 32nd Floor, Los Angeles, California 90017; and Thomas J. Lannon, Registration No. 18,417, 105 Whittier St., NW, Washington, DC 20012, to prosecute this application and to transact all business in the United States Patent and Trademark Office in connection therewith.

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By: A2D Corporation, a California
corporation, its general partner

By: _____
Ronald A. Katz
President,
A2D Corporation

Attorney Docket No. 6646-114N1
6646\114N1.poa

2

POWER OF ATTORNEY BY ASSIGNEE

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     and Trademarks
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Sir:

I, ALDO TESI, Executive Vice President of
FIRST DATA RESOURCES INC., a corporation of the
State of Delaware and assignee of the entire right,
title and interest in the application for United
States Letters Patent entitled TELEPHONE INTERFACE
CALL PROCESSING SYSTEM WITH CALL SELECTIVITY and
executed __September 27, 1989__ with inventor RONALD
A. KATZ, hereby appoint:

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Harold E. Wurst	22,183
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90012-2628, as attorneys of said corporation with
full powers of substitution and revocation to prose-
cute this application and to transact all business

in the United States Patent and Trademark Office in connection therewith.

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